

696-250

37 C.F.R. 1.121(c)(1)(ii) ATTACHMENT

1. (Twice Amended) A furnace for cracking hydrocarbon feed to produce olefins, said furnace comprising:

- (a) at least one fired radiant chamber, wherein each said radiant chamber is divided into at least two separate independent radiant zones by a fired radiant chamber dividing means;
- (b) at least one radiant burner in each said zone of said fired radiant chamber;
- (c) a convection chamber in direct communication with each said fired radiant chamber;
- (d) at least one process coil for each said separate independent radiant zone, wherein each said independent process coil extends through at least a portion of said convection chamber and extends into one of said separate independent radiant zones before exiting said furnace;
- (e) a flue for discharging flue gas located at the top of each said convection chamber of said furnace; and
- (f) a means for independently controlling the radiant [burners] burner in each said separate independent radiant zone.

2. (Thrice Amended) A furnace for cracking hydrocarbon feed to produce olefins, said furnace comprising:

- (a) at least two fired radiant chambers wherein each said fired radiant chamber is divided into at least two separate independent radiant zones by a fired radiant chamber dividing means;

696-250

- (b) at least one radiant burner in each ~~of said [zone]~~ zones of said fired radiant [chamber] chambers;
- (c) a convection chamber in direct communication with each said fired radiant chamber;
- (d) at least one independent process coil for each said separate independent radiant zone, wherein each said process coil extends through at least a portion of said convection chamber and extends into one of said separate and independent radiant zones before exiting said furnace;
- (e) a flue for discharging flue gas located at the top of each said convection chamber of said furnace; and
- (f) a means for independently controlling the radiant [burners] burner in each said separate independent radiant zone.

9. (Amended) An improved pyrolysis cracking furnace having a radiant cracking chamber wherein said improvement comprises dividing said radiant cracking chamber into at least two separate and independent radiant cracking zones by providing a dividing wall in said radiant cracking chamber to separate said radiant cracking chamber into at least two separate and independent radiant cracking zones, and separately and independently controlling the temperature in each of said separate and independent radiant cracking zones.